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EXAMINER

TARAE, CATHERINE MICHELLE

ART UNIT	PAPER NUMBER
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3623

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/998,038

Applicant(s)

BAYER ET AL.

Examiner

C. Michelle Tarae

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13, 15-28 and 30-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 15-28 and 30-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. The following is a Final Office Action in response to the communication filed on March 27, 2007 has been entered.

Claim 30 has been amended. Claims 1-13, 15-28 and 30-42 are now pending in this application.

Response to Amendment

2. Applicant's amendment to claim 30 is acknowledged.

Response to Arguments

3. Applicant's arguments with respect to the 35 USC 112, second paragraph rejection are found persuasive. Therefore, the 35 USC 112, second paragraph rejection is withdrawn.

Examiner notes on page 10 of the Remarks, Applicant is not referring to the most recent prior art rejections. For example, a prior art rejection under 35 USC 102(e) was not asserted per Applicant's statement at the top of page 10 of the Remarks. Examiner notes that the most recent prior art rejections are found in the Office Action mailed December 28, 2006 and include a 35 USC 103(a) rejection of claims 1-13, 16-28 and 30-42 over Fuisz et al (US 6,718,310) and McArdle et al. (U.S. 6,622,126) as well as 35 USC 103(a) rejection of claim 15 over Fuisz et al. and McArdle et al., in view of Billet (US 2003/0018514).

Applicant's arguments with respect to Fuisz have been fully considered, but are not persuasive. In the Remarks, Applicant argues that Fuisz does not teach or suggest comparing a focal product set to an analysis product set using a time frame for an initial focal product set purchase, and a number of time intervals for one or more analysis product set purchases before and after the initial focal product set.

In response to the argument, Examiner respectfully disagrees. Fuisz teaches a "prime motivator," where the prime motivator is identified and used to indicate the motivation for the shopper to initiate a shopping session (column 2, lines 36-40). In addition, Fuisz teaches a "derivative product(s)," which are products purchased during the shopping session that did not initiate the shopping session, but still represent purchasing behavior (column 2, lines 40-44). Since Applicant defines in the Specification the focal product set as products that trigger a sequence of purchasing behavior (page 6, lines 23-25) and the analysis product set as includes products that describe the customer purchasing behavior (page 6, lines 25-26), Examiner respectfully submits that Fuisz's "prime motivator" and "derivative products" read on Applicant's definitions. In col. 5, lines 38-57 Fuisz discloses at each product purchase (i.e., a number of time intervals for an analysis product set purchase) comparing the two types of product sets in order to determine if the product purchased is related to any prime motivators. Also in col. 6, lines 25-36 and col. 9, lines 32-35, Fuisz discloses another embodiment in which the purchased product is compared with purchased products in the customer's shopping history to determine if the product is related to any prime motivators.

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Therefore, Examiner respectfully submits Fuisz does disclose comparing a focal product set to an analysis product set using a time frame for an initial focal product set purchase, and a number of time intervals for one or more analysis product set purchases before and after the initial focal product set.

Applicant's arguments with respect to McArdle have been fully considered, but are not found persuasive. In the Remarks, Applicant argues that McArdle does not teach or suggest selecting a segment of customers and then identifying and accessing customer transaction data using the selected segment of customers.

In response to the argument, Examiner respectfully disagrees. Figure 2 and col. 3, lines 10-13 shows the user selecting a customer segment called "Inactive Shoppers." Once the "Inactive Shoppers" segment is selected then the user can access and analyze the customer transaction data associated with the "Inactive Shoppers" segment (col. 3, lines 14-15). Examiner respectfully submits that the claims, as currently recited, do not preclude using transaction data to place customers into segments as this step can arguably occur before step (a) in claim 1, for example. Applicant also argues that monitoring segment migration is not the same as identifying customer transaction data for a pattern of customer purchasing behavior. However, Examiner respectfully submits that customer segment migration reflects changes or patterns in customers' purchasing behavior as a pattern in purchasing behavior is used to place the customer into a segment or to indicate a migration of the customer from one segment to another.

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Therefore, Examiner respectfully submits McArdle does teach selecting a segment of customers and then identifying and accessing customer transaction data using the selected segment of customers.

Applicant's arguments with respect to the 35 USC 103(a) rejection have been fully considered, but are not found persuasive. In the Remarks, Applicant argues that Examiner used impermissible hindsight in her combination of Fuisz and McArdle.

In response to the argument, Examiner respectfully disagrees and submits that it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In the instant case, Examiner demonstrated that Fuisz and McArdle are analogous arts in that both are concerned with analyzing customer purchasing behaviors. Both Fuisz and McArdle disclose maintaining a database of customer behavior based on observed customer purchases (Fuisz, col. 5, lines 4-7; McArdle, col. 3, lines 35-37). All that remained in Fuisz was to select a segment of customers from its already existing database of customer transaction data. Examiner submitted that it would have been obvious to a person of ordinary skill in the art to do so because by allowing a user to indicate what type of data they desire to be selected from a database provides the user with more control and flexibility to manipulate and work with the customer data, thereby enhancing the various ways the user can analyze the

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customer purchasing behavior data. Fuisz shows the desire for this benefit in col. 1, lines 53-57 where Fuisz discloses a need to identify customer motivations from their purchasing decisions using a large statistical base.

In conclusion, Applicant's arguments have been fully considered, but were not found persuasive. The rejections of the claims are maintained and repeated below.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-13, 16-28 and 30-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuisz et al (US 6,718,310) and McArdle et al. (U.S. 6,622,126).

As per claims 1, 16 and 30, Fuisz teaches accessing customer transaction data from the database managed by a computer (column 5, lines 4-7: "The method 1000 builds a database of customer behavior based on observed customer purchases and the order in which the purchases were made."); performing a pattern detection function in the computer using the customer transaction data accessed from the database managed by the computer, wherein the pattern detection function finds patterns in customer purchasing behavior, as evidenced by the customer transaction data, related to a sequence of when purchases occur (See Figure 3, column 5, lines 38-57: "FIG. 3 illustrates a method (2000) according to another embodiment of the present invention.

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According to this second method (2000), the system (100) maintains an ever-increasing list of prime motivators during a single shopping session. Again, prior to a first iteration of the method (2000), the list of prime motivators is set to a null value. Each time a purchase is made, the method (2000) may be called. In step (2010), the method (2000) determines whether the purchased product is related to any prime motivators that may have been identified previously during the shopping session (Step 2010). If so, the purchased product may be designated as a derivative and the method (2000) may increment the derivative count for the purchased product in the product database (Step 2020). Otherwise, the list of prime motivators may be amended to include the purchased product (Step 2030). Also, the method (2000) may increment the prime motivator count for the purchased product in the product database (140) (Step 2040). At the conclusion of (Step 2020) or (Step 2040), the method (2000) may conclude and, if necessary, return to a larger purchasing routine for completion." Whereby the ability of the system to maintain a list of prime motivators and derivatives of customer purchasing data is representative of determining a pattern) by comparing a focal product set to an analysis product set using a time frame for an initial focal product set purchase, and a number of time intervals for one or more analysis product set purchases before and after the initial focal product set purchase (Fuisz teaches a "prime motivator" (column 2, lines 36-40), where the prime motivator is identified and used to indicate the motivation for the shopper to initiate a shopping session. This is equivalent to the focal product set as defined in the Specification (page 6, lines 23-25), where the focal product set includes products that trigger a sequence of purchasing behavior. In addition, Fuisz

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teaches a "derivative product(s)" (column 2, lines 40-44), which are products purchased during the shopping session that did not initiate the shopping session, but still represent purchasing behavior. This is equivalent to the analysis product set as defined in the Specification (page 6, lines 25-26), where it includes products that describe the customer purchasing behavior. Fuisz builds a database of information by logging the products purchased during every shopping session and classifying them as either a derivative or prime motivator product (column 4, lines 1-4). Therefore, Fuisz teaches an equivalent structure that performs an identical function in substantially the same manner with substantially the same results. The timing aspect is represented by the shopping session, where the session occurs within a period of time and each shopping session would constitute another time interval.).

Fuisz et al. does not expressly teach selecting a segment of customers from a database managed by the computer based on one or more user-specified attribute, wherein the selected segment of customers is used to identify the customer transaction data. McArdle et al. teaches selecting segments of customers based on user-specified attributes (i.e., various sales data), where the customer data is stored in a database (col. 3, lines 4-7, 10-11, 35-41 and 58-63; col. 4, lines 50-53). Fuisz et al. and McArdle et al. are analogous arts in that both are concerned with analyzing customer purchasing behaviors. Thus, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Fuisz et al. to allow a user to select a segment of customers from a database based on a specified attribute, where the selected customers are used to identify customer transaction data because by allowing

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a user to indicate what type of data they desire to be selected from a database provides the user with more control and flexibility to manipulate and work with the customer data, thereby enhancing the various ways the user can analyze the customer purchasing behavior data.

As per claims 2, 17 and 31, Fuisz teaches the pattern function identifies the patterns in the customer purchasing behavior leading up to and after the purchase (column 6, lines 2-5: "The method may cross-reference purchasing decisions with customer profiles to determine whether a purchase has been made as part of a routine or represents other ad hoc purchasing decisions." Whereby the cross referencing may occur before or after the purchase or on both occasions.).

As per claims 3, 18 and 32, Fuisz teaches the pattern detection function discovers which of the patterns in the customer purchasing behavior are associated with future purchases (column 4, lines 39-49: "In the example above, during the third iteration of the method 1000, the customer purchases shampoo. It is unlikely that Tylenol and shampoo will be assigned the same class codes in the product database 140. Thus, the method 1000 will not consider Tylenol and shampoo to be related products. The purchased shampoo will be designated as the prime motivator and its prime motivator count will be incremented. Tylenol will cease to be the prime motivator. Thus, in a successive iterations of the method 1000, the method 1000 will determine if the next-purchased product is related to shampoo.")

As per claims 4, 19 and 33, Fuisz teaches the pattern detection function finds the patterns in the customer purchasing behavior by comparing a focal product set to an

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analysis product set over a specified time interval (column 8, lines 58-67: "Accordingly, the present invention provides methods of identifying prime motivator products and derivative products based upon product class codes, time indices and number of pages viewed. The methods and, in particular, the class codes may be tailored for specific applications such as to identify brand loyalty among the consuming public. The present invention also may be further enhanced to filter product purchases and possibly exclude them from being considered as prime motivators or derivatives based upon customer histories." Whereby the "prime motivator" represents the focal product set and the "derivative" represents the analysis product set.).

As per claims 5, 20 and 34, Fuisz teaches determining when an item from the analysis product set is purchased after an initial purchase of an item from the focal product set over the specified time interval (See Figure 6, column 7, lines 10-28: "FIG. 6 illustrates another method (5000) according to an embodiment of the present invention. According to method (5000), prime motivator products may be identified based upon the times between product purchases. According to the embodiment, the method (5000) records the time of the beginning of a shopping session and the time of each product purchase (Steps 5010, 5020). At the conclusion of the shopping session, for each purchased product, the method (5000) determines an incremental time of purchased measured as the time between the most recent preceding purchase (Step 5030). The first purchased product is designated a prime motivator product. Also, purchased products may be designated as prime motivator products if their associated incremental time of purchase is greater than the average time between purchases

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(Step 5040). All other products are designated derivative products. The method increments the prime motivator counts and derivative counts of the purchased products in the product database 140.").

As per claims 6, 21 and 35, Fuisz teaches the focal product set includes products that trigger a sequence of the customer purchasing behavior for the specified time interval (column 2, lines 25-35: "Embodiments of the present invention provide a system for identifying and measuring customer motivations in purchasing environments. The system monitors customers as they select goods or services (collectively, "products") for purchase. Of the products that are selected, the system identifies those products that are prime motivators, those products that are related to the customer's motivation to enter the on-line store. The system also identifies other products that are secondary motivators, products that the customer purchases as ancillary to the prime motive products.").

As per claims 7, 22 and 36, Fuisz teaches the analysis product set includes products that describe the customer purchasing behavior (column 2, lines 40-44: "The system also identifies "derivative products," those products that are purchased during a shopping session that, most likely, are not products that caused a customer to initiate a purchasing session.").

As per claims 8-9, 23-24 and 37-38, Fuisz teaches the pattern detection function filters the customer transaction data using a specified attribute in order to reduce the customer transaction data examined for the focal product set (See Figure 4, column 5, lines 66-column 6, lines 5: "FIG. 4 illustrates a method (3000) according to another

embodiment of the present invention. The method (3000) may filter out certain purchases that would not reflect purchasing decisions of the public-at-large.").

As per claims 10, 25 and 39, Fuisz teaches specifying a measure to display for the analysis product set (column 8, lines 31-38: "The method (6000) designates the first purchased product as a prime motivator product. Also, purchased products may be designated as prime motivator products if their associated incremental number of pages is greater than the average number of pages between purchases (Step 6040). Whereby derivative counts represent the measure.)).

As per claims 11, 26 and 40, Fuisz teaches the measure is selected from a group comprising: number of customers, sales, confidence, normalized sales, average spending amount, and support (column 8, lines 36-38: "All other products are designated derivative products. The method increments the prime motivator counts and derivative counts of the purchased products in the product database (140). Whereby the purchased products noted represent sales.)).

As per claims 12, 27 and 41, Fuisz teaches displaying a chart on the computer generated by the pattern detection function that shows the measure for the analysis product set (See Figure 7, column 8, lines 39-46: "The method (6000) of FIG. 7 may be optimized further to account for the standard deviation of number of pages between product purchases. In this optimization, products may be designated prime motivators if their associated incremental number of pages between purchases are greater than the average number of pages between purchases plus the standard deviation of the number of pages between purchases.").

As per claims 13, 28 and 42, Fuisz teaches the displayed chart illustrates purchases from the analysis product set over time periods before and after an initial purchase of the focal product set (claim 5: "A method of determining customer motivations in an on-line shopping session, comprising the steps of: associating a respective set of class codes with each of a plurality of product records in a database; each such product record including respective product information; retrieving product information for one or more products from the database; forwarding the retrieved product information to a remotely-located requester; receiving a purchase selection from the requestor for a particular product; retrieving a customer history associated with the requestor; comparing the purchased particular product to subscription products identified in the customer history; unless the purchased particular product matches a subscription product in the customer history, determining whether the purchased particular product is related to any subscription product identified in the customer history; if the purchased particular product is related to a subscription product identified in the customer history: revising the customer history to remove the related subscription product from the customer history, incrementing in the database a prime motivator count associated with the purchased particular product, and labeling the purchased particular product as the current prime motivator product." Whereby the information is gathered, updated and posted after each transaction which indicates the status both before and after purchase.).

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6. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fuisz et al. and McArdle et al., in view of Billet (US 2003/0018514).

As per claim 15, Fuisz does not explicitly teach specifying customer level to determine how to aggregate the customer data. Billet teaches that it is known to specify a customer level to determine how to aggregate customer transaction data (paragraph 25, where the parameters represent levels). Billet is an analogous art as it also teaches about gathering, storing and determining patterns of customer data. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the customer database system of Fuisz with the level feature of Billet to allow for a more efficient and flexible means of aggregating the data.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Michelle Tarae whose telephone number is 571-272-6727. The examiner can normally be reached Monday – Friday from 8:30am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz, can be reached at 571-272-6729.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


C. MICHELLE TARAE
PRIMARY EXAMINER

June 7, 2007